

AMMOPHILA CHAMPLAINENSIS (GRAMINEAE), A NEW SPECIES IN NEW YORK AND VERMONT

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In the course of compiling data at the Pringle Herbarium for my forthcoming book on the Flora of New England, my attention was drawn to some specimens of *Ammophila* from Lake Champlain. To find any species of *Ammophila* so far inland as this seems surprising, as this genus of grasses is found with us particularly on saline sand dunes along sea coasts. Curiosity over this occurrence being piqued, an examination of the specimens and comparison of them with some from the seacoast brought further surprise in finding that they showed some very clear differences, such as shorter and acute rather than acuminate glumes and shorter less tapering inflorescences. This new species appears to be a relict of the age when the area now covered by the fresh waters of Lake Champlain was an ancient inland arm of the Atlantic Ocean.

Therefore I designate it as:

AMMOPHILA **champlainensis**, species nova. *A. breviligulata* Fern. simulans; ligulis rotundatis vel truncatis, 1-3 mm longis; panícula linearicylindrica, abrupte terminata, non attenuata, 13-16 cm longa; glumis scabrellis, acutis, non attenuatis; gluma inferiore 9-10.5 mm longa; gluma superiore 10-11.5 mm longa; lemmate acuto, 9-10.5 mm longo; palea acuta 9-10 mm longa. *Ammophila champlainensis*, new species. Similar to *Ammophila breviligulata* Fern.; ligules rounded or truncate, 1-3 mm long; panicle linear-cylindric, abruptly ended, not attenuate, 13-16 cm long; glumes finely scabrous, acute, not attenuate; lower glume 9-10.5 mm long; upper glume 10-11.5 mm long; lemma acute 9-10.5 mm long; palea acute, 9-10 mm long.

Type: New York, on Lake Champlain, Au Sable Point, in sand, 3 July 1902, Nellie F. Flynn (VT). Other representative specimens are: New York, mouth of Au Sable River, 3 July 1902, L. R. Jones (VT); Vermont, sandy shore, Lake Champlain, Alburg, 19 July 1878, C. G. Pringle (VT).

In New England, three species are now known to occur, namely, (1) the familiar common species of the Atlantic Coast, *A. breviligulata* Fern.; (2) *A. arenaria* (L.) Link, the European Beachgrass, planted in some places such as Provincetown, Mass.; (3) *A. champlainensis* sp. nov., of Lake Champlain. To present the distinguishing characters of these three species in the most contrasting form, the following key is presented. Attention is called to the accompanying photographic illustrations of the two indigenous species.

KEY TO THE NEW ENGLAND SPECIES OF AMMOPHILA

- A. Ligule 1-3 cm long; blades puberulent above; panicle 1-2 dm long; lemma 2-toothed at tip; lemma and palea mucronate; glumes usually glabrous; axis of panicle glabrous or nearly so . . . *A. arenaria*
- A. Ligule 1-3 mm long; blades scabrous on nerves above but not puberulent; panicle 13-30 cm long, rarely longer; lemma not 2-toothed; glumes puberulent or minutely scabrous; axis of panicle puberulent B.
- B. Panicle (19-) 21-30 cm long, rarely longer, gradually tapering at both ends; lower glume attenuate, 11-13 mm long; upper glume 12-14 mm long, attenuate; keel of glumes almost straight; lemma 10-12 mm long; palea 10-11.5 mm long *A. breviligulata*
- B. Panicle 13-16 cm long, abrupt at both ends; lower glume merely acute, 9-10.5 mm long; upper glume 10-11.5 mm long, merely acute; keel of glumes decidedly curved especially at tip; lemma 9-10.5 mm long; palea 9-10 mm long *A. champlainensis*

(Opposite)

Ammophila breviligulata
N. J., sea coast
Dr. J. B. Brinton
1882 (VT)
1. Spikelet × 6

Ammophila breviligulata
Mass., Nantucket
sea beaches, 12 Aug. 1897
Mrs. Nellie F. Flynn (VT)
2. Inflorescence × ½

Ammophila champlainensis
N. Y., on Lake Champlain
Au Sable Point, in sand
3 July 1902,
Mrs. Nellie F. Flynn (VT)
TYPE
3. Spikelet × 6
4. Inflorescence × ½
1 division of scales represents 1 mm.

